



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,970	12/09/2003	Allen K. Hawley	SVL920030037US1	6431
24852 7590 02/08/2007 INTERNATIONAL BUSINESS MACHINES CORP IP LAW 555 BAILEY AVENUE, J46/G4 SAN JOSE, CA 95141			EXAMINER WEI, ZHENG	
			ART UNIT 2192	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/08/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/731,970	Applicant(s) HAWLEY ET AL.	
	Examiner Zheng Wei	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/09/2003. 01/05/2007.</u> | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This office action is in response to the application filed on 12/09/2003.
2. Claims 1-18 are pending and have been examined.

***Oath/Declaration***

3. The Office acknowledges receipt of a properly signed oath/declaration filed on December 09, 2003.

***Priority***

4. The priority date considered for this application is December 09, 2003.

***Information Disclosure Statement***

5. The information disclosure statements filed 12/09/2004 and 01/05/2007 have been placed in the application file. However the information referred to IDS filed on 12/09/2003 has not been considered. Because the Applicant does not provide a copy of referred document.

***Drawings***

6. The drawings filed on December 09, 2003 are accepted by the Examiner.

***Specification***

7. The disclosure is objected to because of the following informalities:

The information of Section "CROSS-REFERENCE TO RELATED APPLICATIONS" needs to be updated by using assigned Application Serial Number.

Appropriate correction is required.

***Claim Objections***

8. Claims 4, 10 and 16 are objected to because of the following informalities:

Claims 4, 10 and 16: "proposing an identified variable as a proposal responsive to a verb of the partial program instruction statement and responsive to a variable type of the variable" should be change to -- proposing an identified variable as a proposal responsive to a verb of the partial program instruction statement or responsive to a variable type of the variable—according to the specification (see p.6, lines 14-16, "Candidates may be proposed responsive to a verb of the partial program instruction statement, responsive to a variable type of variable, or responsive to a portion of the program containing the partial program instruction statement"). For the purpose of compact prosecution, the Examiner treats the claims as "or" conditions.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 13-18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 13-18: Claims 13-18 claim a computer system, which comprises parsers that seem to be software components (see Fig.9, element 908). Therefore the computer system can be interpreted as only consisting of software programs. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized. Thus, they are not statutory.

This rejection can be overcome by adding computer hardware components into the claims that permit the computer program's functionality to be realized.

*See M.P.E.P. 2106.01 (I)*

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Shulman (Shulman et al., US 6,026,233)

**Claim 1:**

Shulman discloses an article of manufacture for use in a computer system for providing assistance to a programmer writing computer programming code, said assistance comprising suggested candidates responsive to a parsing of a partial program instruction statement, said article of manufacture comprising a computer-useable storage medium having a computer program embodied in said medium which causes the computer system to execute method steps comprising:

- parsing a program containing the partial program instruction statement to identify variables contained in the program (see for example, Fig. 13A, steps 1331, 1331, "Parse Program Statement Into Tokens" and related text);
- parsing the partial program instruction statement to generate proposals (see for example (see for example, Fig. 3, element 210 (partial program statement), element 220 (proposal information) and related text); and
- providing proposals to append to the partial program instruction statement to a user responsive to both the parsing of the program and the parsing of the

partial program instruction statement (see for example, Fig.5, elements 510 and 210 and related text, selected proposal (font) has been appended to partial program (mytext));

**Claim 2:**

Shulman further discloses the article of manufacture of claim 1 wherein the method further comprises: proposing an identified variable as a proposal responsive to a verb of the partial program instruction statement (see for example, Fig.13B, step 1355, "Determine Object Type and Member Return Type", step 1357 "Generate Assist Window with Member List" and related text).

**Claim 3:**

Shulman also discloses the article of manufacture of claim 1 wherein the method further comprises: proposing an identified variable as a proposal responsive to a variable type of the variable (see for example, col.4, lines46-48, "assist window includes any finite list of previously declared entities and/or entity type", also see Fig.13B, step 1355, "Determine Object Type and Member Return Type")

**Claim 4:**

Shulman also disclose the article of manufacture of claim 1 wherein the method further comprises: proposing an identified variable as a proposal responsive to a verb of the partial program instruction statement (see for example, Fig.13B, step

1355, "Determine Object Type and Member Return Type", step 1357 "Generate Assist Window with Member List" and related text) or responsive to a variable type of the variable (see for example, col.4, lines 46-48, "assist window includes any finite list of previously declared entities and/or entity type", also see Fig. 13B, step 1355, "Determine Object Type and Member Return Type").

**Claim 5:**

Shulman further discloses the article of manufacture of claim 1 wherein the method further comprises: proposing an identified variable as a proposal responsive to a portion of the program containing the partial program instruction statement (see for example, Fig. 7, element 740 and related text for proposing an previous declared variable for the procedure "MyProc")

**Claim 6:**

Shulman also discloses the article of manufacture of claim 1 wherein the parsing of the program and the parsing of the partial program instruction statement are performed according to a user-selected programming language dependent file selected from a plurality of programming language dependent files (see for example, col. 5, lines 44-46, "local program definition", "global library definition", also see, col. 7, lines 6-9, "the present invention can be implemented within any programming language")



**Claims 7-12:**

Claims 7-12 are the exactly the same methods that are used by claimed article of manufacture for providing assistance to a programmer writing computer programming code as addressed in claims 1-6 above respectively. Therefore, as all claimed limitations have been address and/or set forth and the references teach all the limitations of claims 1-6, they also anticipate the claims 7-12 (see for example, col.19, line29 –col.20, line 26).

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 13-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Shulman (Shulman et al., US 6,026,233)

**Claims 13-18:**

Claims 13-18 are computer system version of the claimed article of manufacture, wherein all claimed limitation for providing a code assist function have been addressed and/or set forth in claims 1-6 above respectively. Therefore they also would have been obvious in view of Shulman's teachings. (see for example,

Fig.1 computer system and related text, and also see col.5, lines 56-67, description of hardware system for generating statement).

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:
  - Vaidyanathan et al. (US 6,305,008) discloses a system for automatic statement completion.
  - Vaidyanathan et al. (US 6,502,233) discloses an automated help system for reference information.
  - Zatloukal et al. (2005/0015747) discloses a system and method for performing code completion in an integrated development environment.
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zheng Wei whose telephone number is (571) 270-1059. The examiner can normally be reached on Monday-Thursday 8:00-15:00.

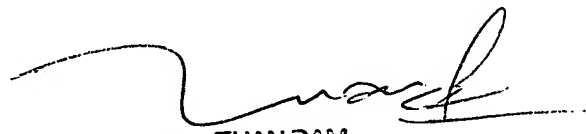
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The

fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571- 272-1000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZW



TUAN DAM  
SUPERVISORY PATENT EXAMINER